

Freight System Trends Snapshot Report

Freight Committee-Economic Development Committee
Joint Meeting
May 16, 2016

ON TO 2050 snapshot reports

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- Concise, data-driven examinations of existing conditions and trends in key topics related to the development of ON TO 2050
- Staff is currently developing or planning nine snapshot reports throughout the plan process
 - One topic is freight system trends

Freight system trends snapshot report

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- Three main themes:
 - ▣ Freight drives the **regional economy**
 - ▣ Freight raises **infrastructure challenges**
 - ▣ Freight raises **regulatory challenges**

Freight drives the regional economy

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- Longstanding area of focus for CMAP research
 - ▣ Metro Chicago in supply chains
 - ▣ Intermodalism

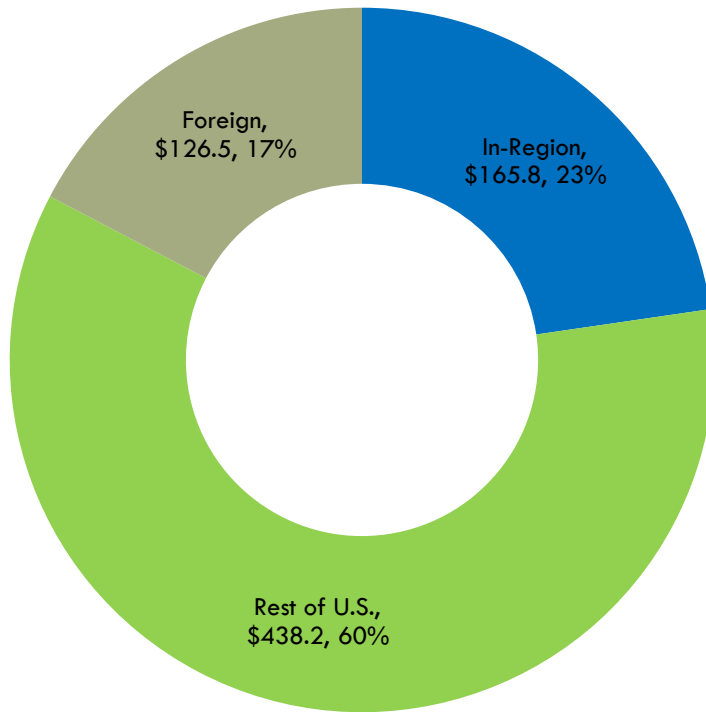
Mode	Value (Millions)	Tonnage (Millions)
Truck	\$492,943	196.8
Air	\$19,413	0.3
Rail	\$33,323	61.0
Water	\$19,076	10.8

Source: Chicago Metropolitan Agency for Planning analysis of 2012 Freight Analysis Framework 4.1 data.

Metro Chicago in supply chains

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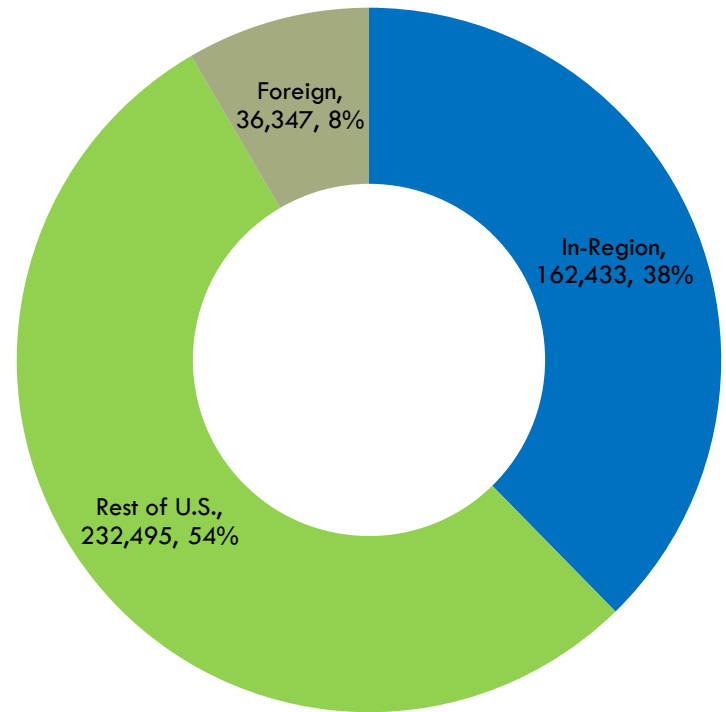
Chicago region total trade value by geography, 2012, in billions of dollars



Note: Freight modes include air, truck, rail, and water.

Source: Chicago Metropolitan Agency for Planning analysis of Freight Analysis Framework 4.1 data.

Chicago region total trade weight by geography, 2012, kilotons

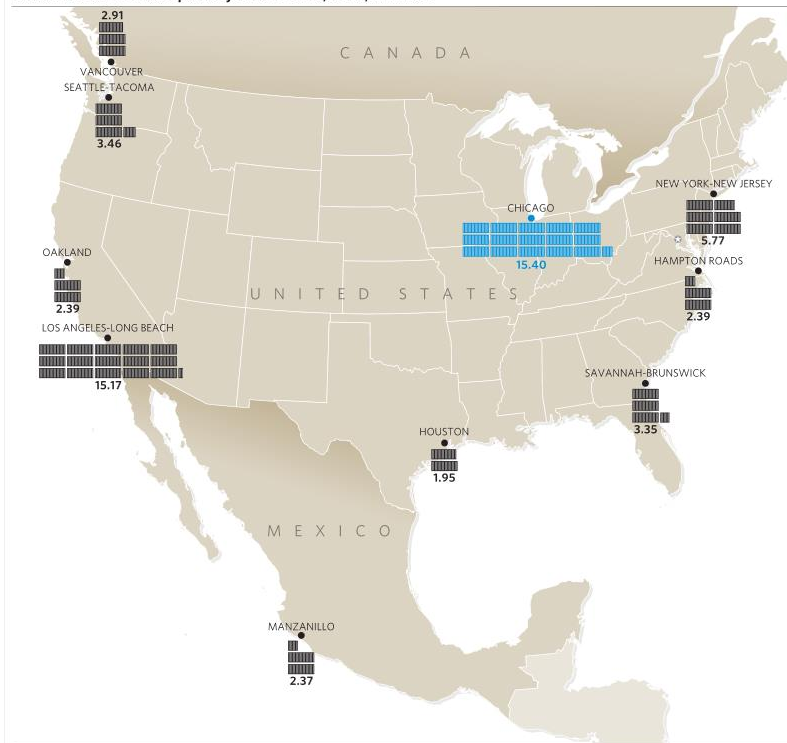


Note: Freight modes include air, truck, rail, and water.

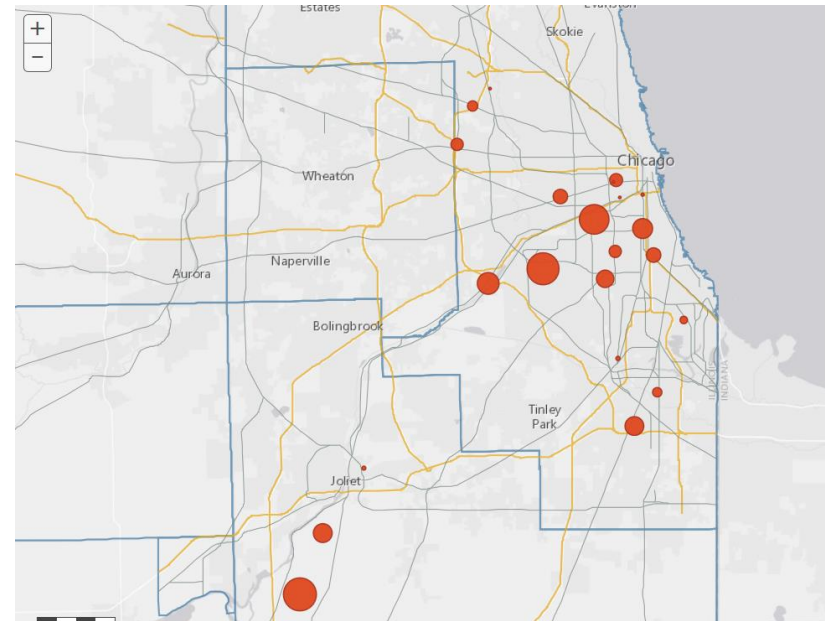
Source: Chicago Metropolitan Agency for Planning analysis of Freight Analysis Framework 4.1 data.

Intermodalism

Busiest North American ports by TEUs moved, 2014, in millions



Notes: TEU is a 20-foot equivalent freight cargo container. Chicago region TEU estimate includes lifts at UP Global III in Rochelle, IL
Sources: Chicago Metropolitan Agency for Planning estimates of regional intermodal activity; American Association of Port Authorities port statistics.

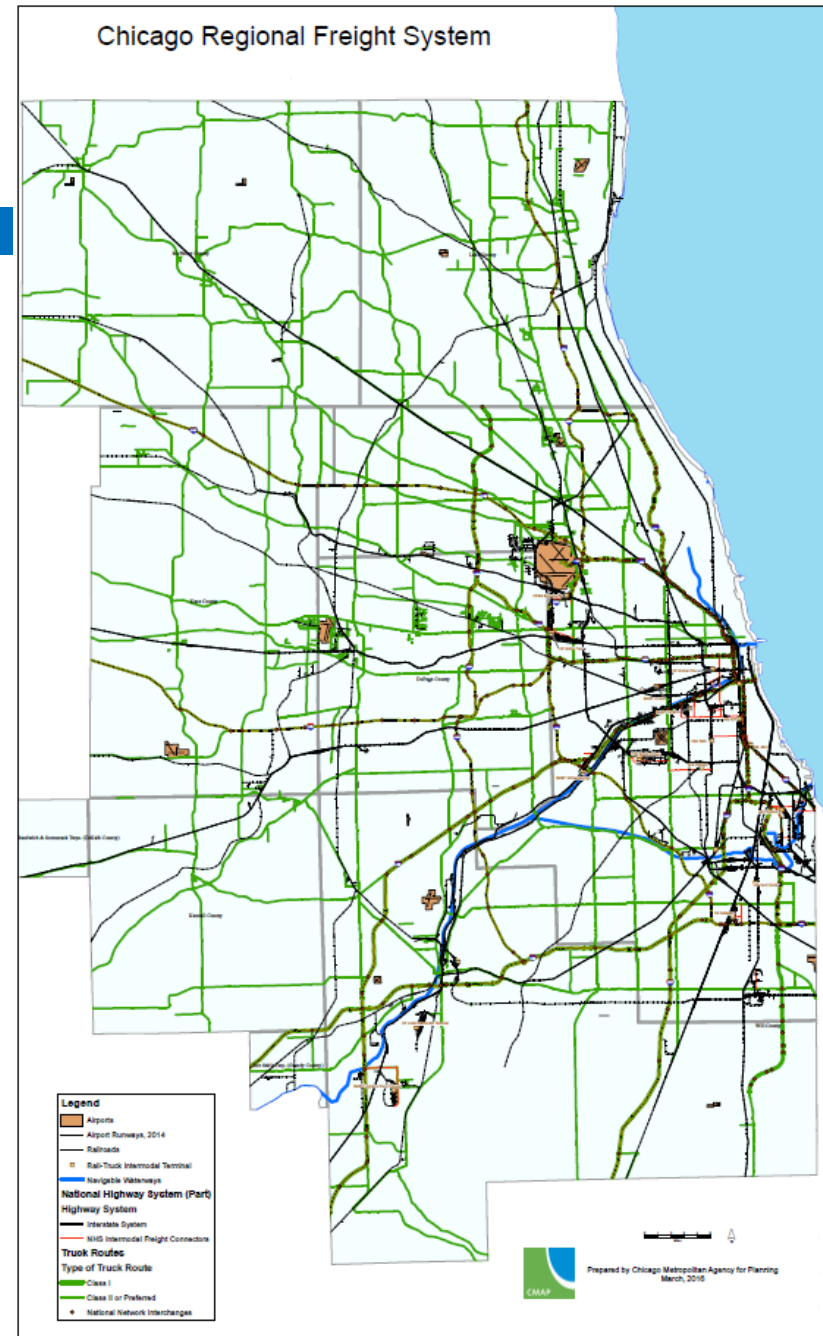


Freight and transportation infrastructure

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CMAP has long been active in monitoring the performance of the region's transportation infrastructure.

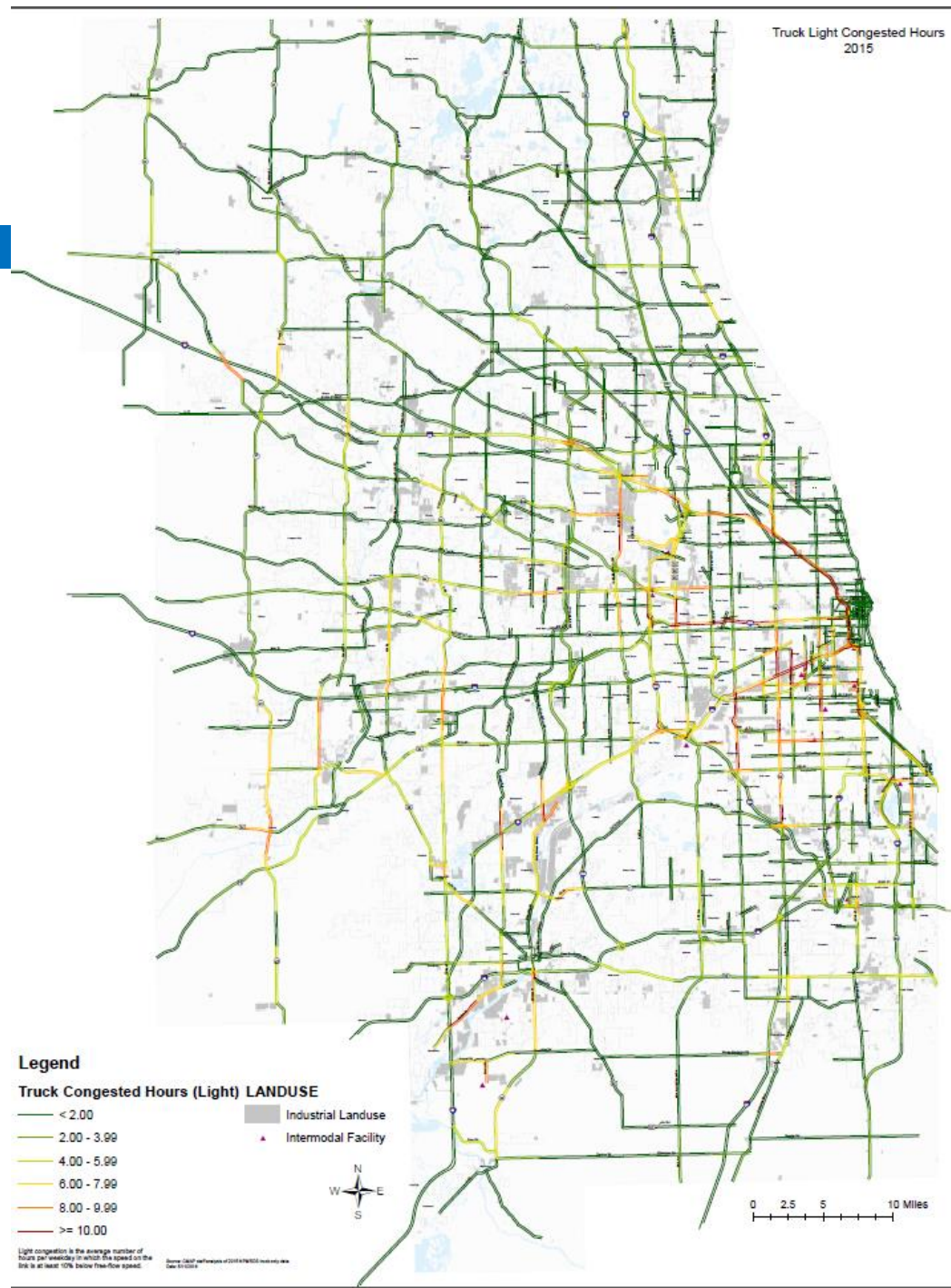
- ▣ Highway
- ▣ Rail
- ▣ Grade crossings



Highway

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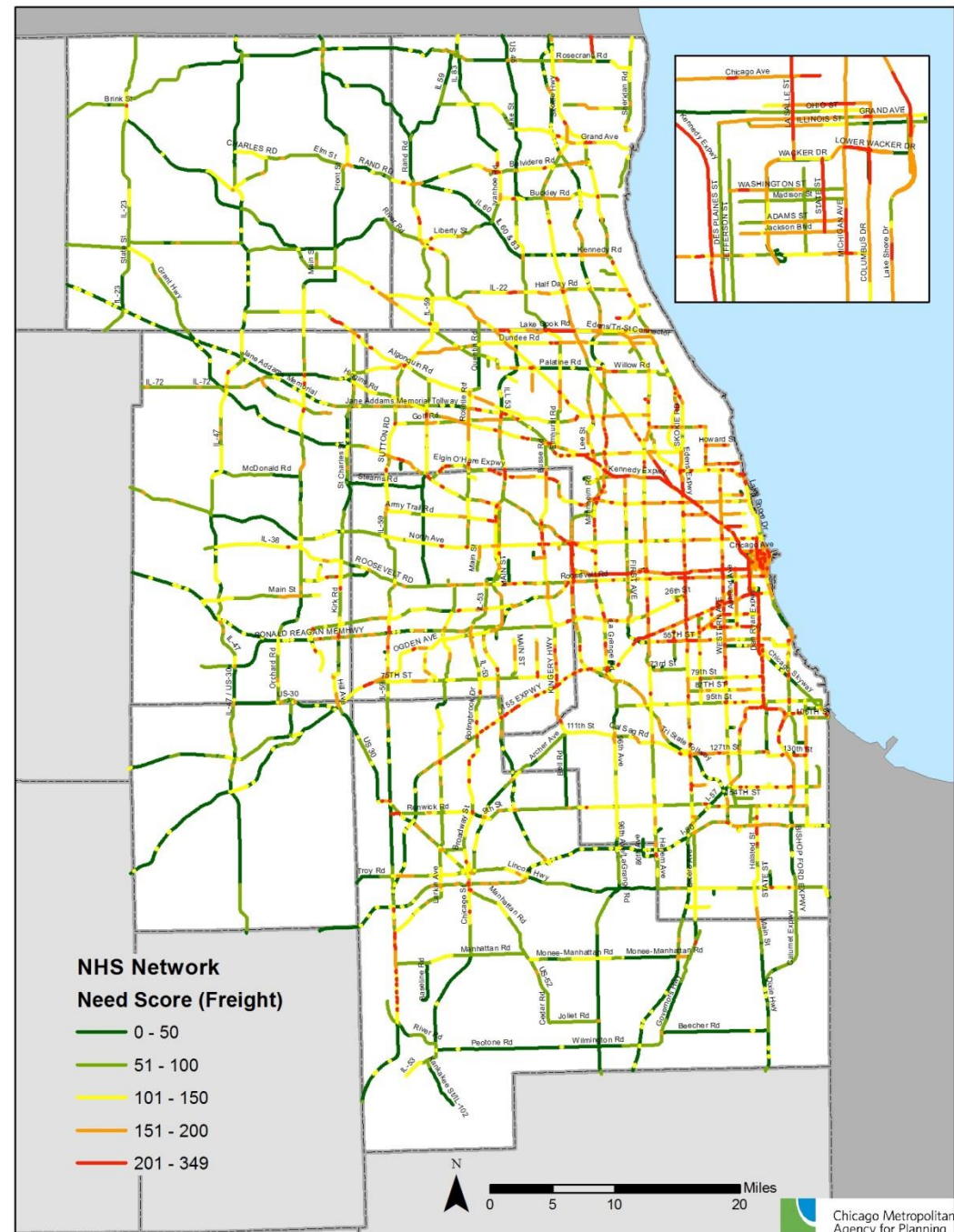
- New trucking data allows detailed analysis of bottlenecks
- Congested locations include major interstates and arterials, particularly at core of region and in major industrial areas



Highway

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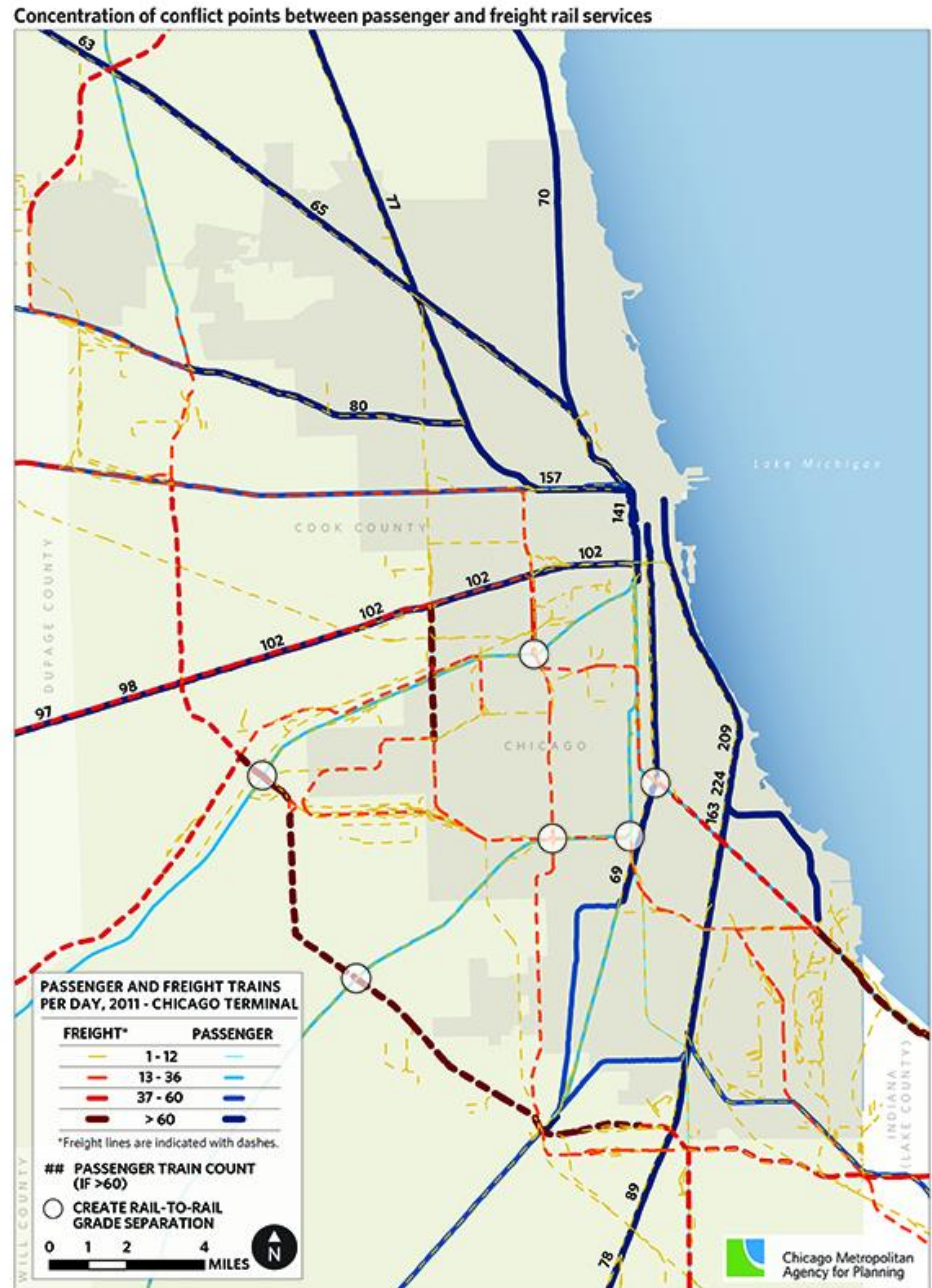
The system has many needs based on measurements of condition, congestion, reliability, and safety



Rail

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- CREATE program status
 - ▣ 25 projects complete
 - ▣ 17 in design
 - ▣ 19 yet to start



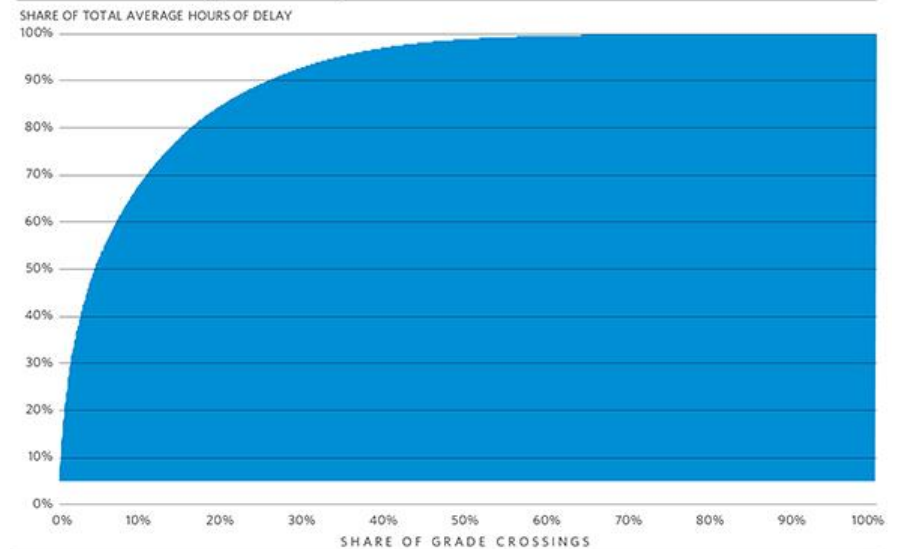
Source: Chicago Metropolitan Agency for Planning analysis of National Transportation Database, 2011. Updated with information from Google Earth, personal communications, and Amtrak, Metra, and South Shore passenger train schedules. Prepared by Chicago Metropolitan Agency for Planning February, 2015.
Note: CN and MED services operate on separate tracks. Data Reflects 2011, before CSX operations on the Elsdon Subdivision commenced.

Grade crossings

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- Average delay is highly concentrated among few locations
- Excessive delay is a key issue in some areas

Cumulative total average hours of delay



Source: Chicago Metropolitan Agency for Planning analysis of Illinois Commerce Commission data.

*Note: This chart includes data from 1,362 crossings, totalling 7,790 hours of delay.

Freight activity raises regulatory challenges

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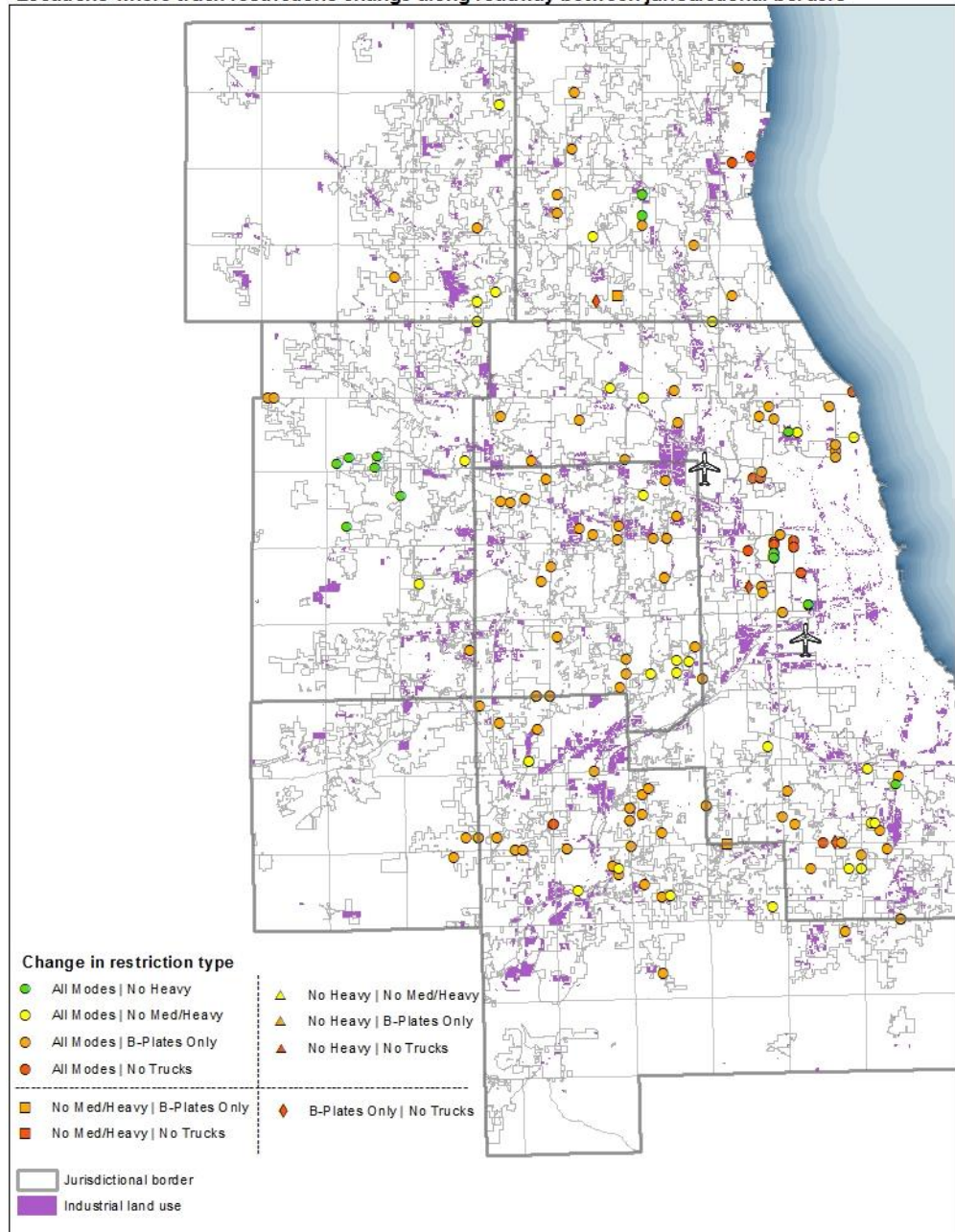
- Truck operations
 - ▣ Routing
 - ▣ Permitting
- Land use conflicts and opportunities
 - ▣ Regional land use patterns
 - ▣ Local conflicts
 - ▣ Preservation of freight-supportive areas

Truck routing and permitting

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- Truck traffic can create noise and damage roads
- Local routes and restrictions are often uncoordinated across jurisdictions
- Ongoing truck permitting initiative

Locations where truck restrictions change along roadway between jurisdictional borders



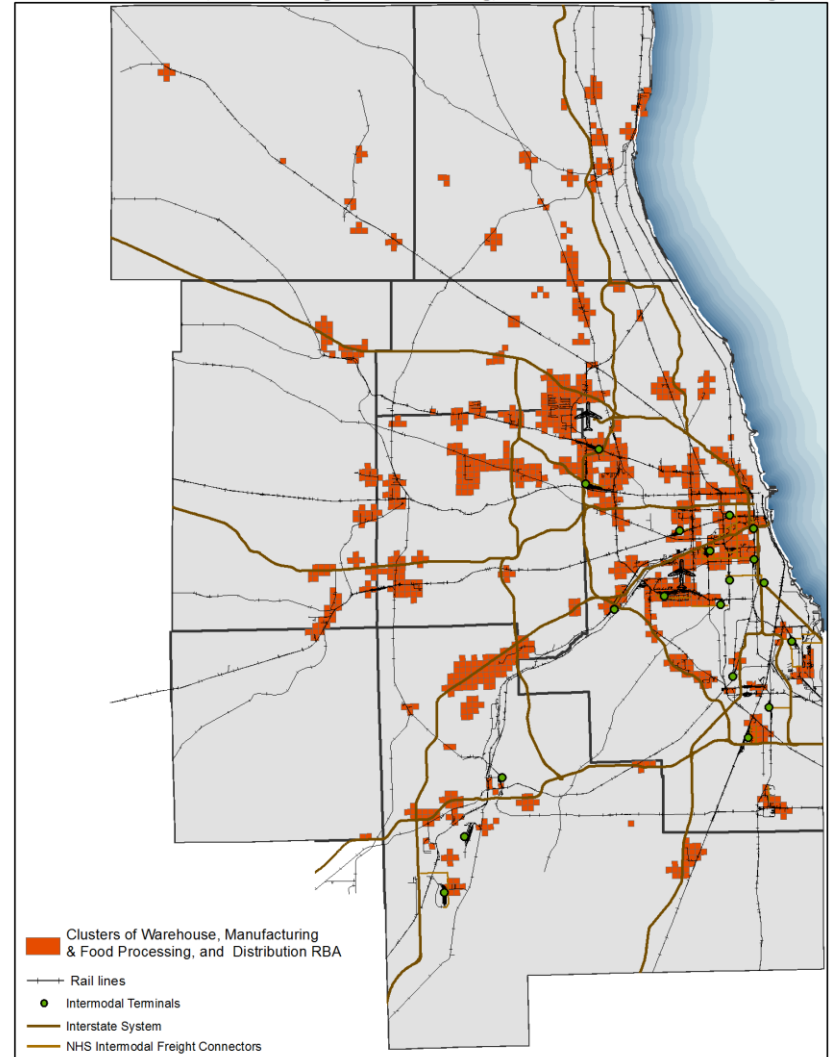
Source: Chicago Metropolitan Agency for Planning Analysis of Illinois Department of Transportation data and Illinois municipal and county codes.

Freight-supportive land uses

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- Large regional industrial market: ~ 1 billion sq. ft.
- Industrial uses tend to locate near transportation facilities
- Some industrial land uses have larger freight needs
 - ▣ Warehousing
 - ▣ Manufacturing and food processing
 - ▣ Distribution

Clusters of Warehouse, Manufacturing & Food Processing, and Distribution RBA in CMAP region



Source: Chicago Metropolitan Agency for Planning Analysis of CoStar data, 2015

Freight land uses in the region

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- About half the region's industrial square footage is located in the Cook County
- Warehousing accounts for 40 percent of the region's industrial square footage

CMAQ Rentable Building Area by industrial development type, in millions, 2016 YTD

	Chicago	Suburban Cook	DuPage	Kane	Kendall	Lake	McHenry	Will	Region
Warehouse	70.4	141.7	95.9	35.4	1.6	30.6	9.9	75.1	460.6
Manufacturing & Food Processing	70.2	101.5	32.5	20.8	6.9	25.6	12.6	20.5	290.5
General Industrial	30.7	36.2	17.3	12.7	0.2	11.1	4.0	5.5	117.7
Distribution	10.0	29.2	21.5	10.5	3.1	6.8	2.3	46.5	129.8
Flex	14.3	29.4	17.0	5.4	0.4	7.3	3.3	4.3	81.5
TOTAL	195.6	338.0	184.1	84.9	12.2	81.4	32.0	152.0	1,080.1

Source: Chicago Metropolitan Agency for Planning analysis of CoStar data, 2016 Year to Date

Next steps

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- Snapshot report to be published this summer
- Regional freight plan development
 - Continued analysis into freight transportation and land use datasets
 - Deeper understanding of the region's freight system
 - Meet FAST Act requirements and opportunities
 - Identify locations for follow-up local freight planning
 - Identify and evaluate policy options for infrastructure improvement prioritization, grade separations, freight-supportive land use, intermodals, and other topics

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